

CLAIMS

1. A device for metering liquid or gel products from a product reservoir, comprising:
 - 5 an axially mobile dispenser head comprising an outlet duct; and a metering chamber defined on the one hand by an inlet valve and on the other hand by a piston having a piston-rod connected to the head and having an outlet valve, the piston-rod being extended inside the chamber by a lower projecting end ensuring sealed locking of the inlet valve when the head is in a lower position, the chamber being formed in a cylindroconical socket having an upper flange for attachment to a rim of the reservoir, wherein the dispenser head comprises an outer lateral skirt provided with a first catch capable of cooperating by latching with a second, lower catch formed on the flange for catching the head in the lower position and capable of cooperating with a second, upper catch for holding the head in an upper position, and preventing separation, and wherein the device is free of a dispenser head displacement return means.
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2. A device as claimed in claim 1, wherein the first catch is formed at the lower part of the outer lateral skirt.
- 20 3. A device as claimed in claim 1, wherein the first catch takes the form of a rib, while the second, lower catch takes the form of a lower recessed portion.
- 25 4. A device as claimed in claim 1, wherein the second, upper catch takes the form of an upper retaining ring.
5. A device as claimed in claim 4, wherein the outer lateral skirt has an annular groove capable of cooperating by latching with the retaining ring when the dispenser head is in the lower position.
6. A device as claimed in claim 1, wherein the flange is provided with a venting orifice.
- 30 7. A device as claimed in claim 6, wherein the head comprises a cylindrical internal wall, coaxial with the skirt and designed to seal the venting orifice when the head is in the lower position.
8. A device as claimed in claim 6, wherein the venting orifice is formed through a shoulder providing a connection with the body of the socket.
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9. A device as claimed in claim 8, wherein the wall in which the shoulder is formed is capable of undergoing resilient deformation under the effect of pressure exerted by the cylindrical wall when the dispenser head is in the lower position.
- 5 10. A device as claimed in claim 1, wherein the piston rod comprises an axial ejection duct opening, at an upper extremity, into a cavity in the head in which the outlet valve is accommodated.
- 10 11. A device as claimed in claim 10, wherein the cavity is formed in a sleeve integral with the lower part of the head and connected coaxially with an upper end of the piston rod.
- 15 12. A device as claimed in claim 10, wherein an upper wall of the cavity is provided with channels communicating with the outlet duct for the product.
- 15 13. A device as claimed in claim 1, wherein the inlet valve comprises an axial tube projecting into the chamber and in which the lower end of the piston rod engages when the head is in the lower position.
- 20 14. A device as claimed in claim 13, wherein a side wall of the tube comprises at least one port for passage of the product.
- 20 15. A device as claimed in claim 1, wherein the inlet valve or the outlet valve comprise a mobile sealing ball.
- 25 16. A device for metering liquid or gel products comprising:
 a product reservoir;
 a dispenser head axially movable with respect to the reservoir between an upper position and a lower position and comprising retaining elements for retaining the dispenser head in the lower position in response to an axial directed force; and
 a metering chamber defined on the one hand by an inlet valve and on the other hand by a piston having a piston-rod connected to the head, the piston-rod having a lower end extending inside the chamber and serving to lock the inlet valve when the head is in a lower position.
- 35 17. A method of sealing a product reservoir for metering liquid or gel products having a dispenser head axially movable between an upper position and a lower position and a metering chamber defined on the one hand by an inlet valve and on the other hand by a piston having a piston-rod connected to the head, the piston-rod having a lower end extending

inside the chamber and serving to lock the inlet valve when the head is in a lower position, the method comprising providing cooperative retaining elements for retaining the dispenser head in the lower position in response to an axial directed force.